

AMENDMENTS TO THE CLAIMS

Please add Claims 131-286 as follows:

- 1 1-18. (Canceled)
- 1 19. (Previously presented) A process for simultaneous storage and playback of
2 multimedia data in a computer environment, comprising the steps of:
3 providing a plurality of input signal tuners in a device;
4 wherein said tuners accept analog and digital television broadcast signals;
5 wherein each of said tuners is individually tuned to a specific broadcast signal;
6 converting analog television broadcast signals into a digital signal;
7 storing said digital signals and digital television broadcast signals on a storage
8 device in the device;
9 providing a plurality of output devices in the device;
10 wherein each of said output devices extracts a specific digital signal from said
11 storage device;
12 decoding said specific digital signals into a television output signal;
13 sending said television output signal to a television monitor; and
14 wherein said plurality of output devices allows for a picture in a picture display on
15 said television monitor.
- 1 20. (Original) The process of claim 19, further comprising the step of:
2 accepting control commands from a user.
- 1 21. (Original) The process of claim 20, wherein the user selects the picture in a
2 picture option to be displayed on said television monitor.

1 22. (Original) The process of claim 20, wherein the user selects which of said output
2 devices displays in said picture in a picture display.

1 23. (Original) The process of claim 20, wherein the user selects the display position
2 of each picture in the picture in a picture display.

1 24. (Original) The process of claim 20, wherein the user selects an individual tuner
2 and the specific broadcast signal for said individual tuner.

1 25. (Original) The process of claim 20, wherein the user selects a specific digital
2 signal to be extracted from said storage device and decoded.

1 26. (Original) The process of claim 20, wherein the user controls the decoding rate
2 and direction of said decoding step to perform variable rate fast forward and rewind,
3 frame step, pause, and play functions on said television output signal.

1 27. (Original) The process of claim 19, further comprising the step of:
2 inserting on screen displays into said television output signal.

1 28. (Original) The process of claim 19, wherein the specific broadcast signal for an
2 individual tuner is selected automatically based on the current date and time.

1 29. (Original) The process of claim 19, wherein the specific broadcast signal for an
2 individual tuner is selected automatically based on a particular word or phrase in said
3 broadcast signal.

1 30. (Previously presented) An apparatus for simultaneous storage and playback of
2 multimedia data in a computer environment, comprising:
3 a plurality of input signal tuners in a device;
4 wherein said tuners accept analog and digital television broadcast signals;
5 wherein each of said tuners is individually tuned to a specific broadcast signal;
6 a module for converting analog television broadcast signals into a digital signal;
7 a module for storing said digital signals and digital television broadcast signals on a
8 storage device in the device;
9 a plurality of output devices in the device;
10 wherein each of said output devices extracts a specific digital signal from said
11 storage device;
12 a module for decoding said specific digital signals into a television output signal;
13 a module for sending said television output signal to a television monitor; and
14 wherein said plurality of output devices allows for a picture in a picture display on
15 said television monitor.

1 31. (Original) The apparatus of claim 30, further comprising:
2 a module for accepting control commands from a user.

1 32. (Original) The apparatus of claim 31, wherein the user selects the picture in a
2 picture option to be displayed on said television monitor.

1 33. (Original) The apparatus of claim 31, wherein the user selects which of said
2 output devices displays in said picture in a picture display.

1 34. (Original) The apparatus of claim 31, wherein the user selects the display
2 position of each picture in the picture in a picture display.

1 35. (Original) The apparatus of claim 31, wherein the user selects an individual
2 tuner and the specific broadcast signal for said individual tuner.

1 36. (Original) The apparatus of claim 31, wherein the user selects a specific digital
2 signal to be extracted from said storage device and decoded.

1 37. (Original) The apparatus of claim 31, wherein the user controls the decoding
2 rate and direction of said decoding module to perform variable rate fast forward and
3 rewind, frame step, pause, and play functions on said television output signal.

1 38. (Original) The apparatus of claim 30, further comprising:
2 a module for inserting on screen displays into said television output signal.

1 39. (Original) The apparatus of claim 30, wherein the specific broadcast signal for
2 an individual tuner is selected automatically based on the current date and time.

1 40. (Original) The apparatus of claim 30, wherein the specific broadcast signal for
2 an individual tuner is selected automatically based on a particular word or phrase in
3 said broadcast signal.

1 41. (Previously presented) A process for simultaneous storage and playback of
2 multimedia data in a computer environment, comprising the steps of:
3 providing a plurality of input signal tuners in a device;
4 wherein said tuners accept analog and digital television broadcast signals;
5 wherein each of said tuners is individually tuned to a specific broadcast signal;
6 converting analog television broadcast signals into a digital signal;
7 separating a digital signal or digital television broadcast signal into its video and
8 audio components;
9 storing said video and audio components on a storage device in the device;
10 providing a plurality of output devices in the device;
11 wherein each of said output devices extracts a specific video and audio component
12 from said storage device;
13 decoding said specific video and audio components into a television output signal;
14 sending said television output signal to a television monitor; and
15 wherein said plurality of output devices allows for a picture in a picture display on
16 said television monitor.

1 42. (Original) The process of claim 41, further comprising the step of:
2 accepting control commands from a user.

1 43. (Original) The process of claim 42, wherein the user selects the picture in a
2 picture option to be displayed on said television monitor.

1 44. (Original) The process of claim 42, wherein the user selects which of said output
2 devices displays in said picture in a picture display.

1 45. (Original) The process of claim 42, wherein the user selects the display position
2 of each picture in the picture in a picture display.

1 46. (Original) The process of claim 42, wherein the user selects an individual tuner
2 and the specific broadcast signal for said individual tuner.

1 47. (Original) The process of claim 42, wherein the user selects a specific video and
2 audio component to be extracted from said storage device and decoded.

1 48. (Original) The process of claim 42, wherein the user controls the decoding rate
2 and direction of said decoding step to perform variable rate fast forward and rewind,
3 frame step, pause, and play functions on said television output signal.

1 49. (Original) The process of claim 41, further comprising the step of:
2 inserting on screen displays into said television output signal.

1 50. (Original) The process of claim 41, wherein the specific broadcast signal for an
2 individual tuner is selected automatically based on the current date and time.

1 51. (Original) The process of claim 41, wherein the specific broadcast signal for an
2 individual tuner is selected automatically based on a particular word or phrase in said
3 broadcast signal.

1 52. (Original) The process of claim 41, further comprising the steps of:
2 extracting other signal components from said digital signal or said digital television
3 broadcast signal;
4 wherein said storage step stores said other signal components on said storage device;
5 wherein each of said output devices extracts the associated signal components of
6 said specific video and audio components from said storage device; and
7 reproducing said associated signal components into their proper location in said
8 television output signal.

1 53. (Previously presented) An apparatus for simultaneous storage and playback of
2 multimedia data in a computer environment, comprising:
3 a plurality of input signal tuners in a device;
4 wherein said tuners accept analog and digital television broadcast signals;
5 wherein each of said tuners is individually tuned to a specific broadcast signal;
6 a module for converting analog television broadcast signals into a digital signal;
7 a module for separating a digital signal or digital television broadcast signal into its
8 video and audio components;

9 a module for storing said video and audio components on a storage device in the
10 device;
11 a plurality of output devices in the device;
12 wherein each of said output devices extracts a specific video and audio component
13 from said storage device;
14 a module for decoding said specific video and audio components into a television
15 output signal;
16 a module for sending said television output signal to a television monitor; and
17 wherein said plurality of output devices allows for a picture in a picture display on
18 said television monitor.

1 54. (Original) The apparatus of claim 53, further comprising:
2 a module for accepting control commands from a user.

1 55. (Original) The apparatus of claim 54, wherein the user selects the picture in a
2 picture option to be displayed on said television monitor.

1 56. (Original) The apparatus of claim 54, wherein the user selects which of said
2 output devices displays in said picture in a picture display.

1 57. (Original) The apparatus of claim 54, wherein the user selects the display
2 position of each picture in the picture in a picture display.

1 58. (Original) The apparatus of claim 54, wherein the user selects an individual
2 tuner and the specific broadcast signal for said individual tuner.

1 59. (Original) The apparatus of claim 54, wherein the user selects a specific video
2 and audio component to be extracted from said storage device and decoded.

1 60. (Original) The apparatus of claim 54, wherein the user controls the decoding
2 rate and direction of said decoding module to perform variable rate fast forward and
3 rewind, frame step, pause, and play functions on said television output signal.

1 61. (Original) The apparatus of claim 53, further comprising:
2 a module for inserting on screen displays into said television output signal.

1 62. (Original) The apparatus of claim 53, wherein the specific broadcast signal for
2 an individual tuner is selected automatically based on the current date and time.

1 63. (Original) The apparatus of claim 53, wherein the specific broadcast signal for
2 an individual tuner is selected automatically based on a particular word or phrase in
3 said broadcast signal.

1 64. (Original) The apparatus of claim 53, further comprising:
2 a module for extracting other signal components from said digital signal or said
3 digital television broadcast signal;

4 wherein said storage module stores said other signal components on said storage
5 device;
6 wherein each of said output devices extracts the associated signal components of
7 said specific video and audio components from said storage device; and
8 a module for reproducing said associated signal components into their proper
9 location in said television output signal.

1 65-130. (Canceled)

1 131. (New) A method for storage and display of multimedia data, comprising the steps
2 of:
3 receiving a digital television stream;
4 extracting from the digital television stream an MPEG stream that contains a
5 plurality of video frames and time stamps associated with the video frames;
6 identifying starting locations of video frames within the MPEG stream and time
7 stamps associated with video frames;
8 storing on a storage device the MPEG stream, starting locations of video frames
9 within the MPEG stream and time stamps associated with the video frames,
10 the storage device additionally containing a plurality of previously stored
11 MPEG streams, starting locations of video frames within each of the
12 previously stored MPEG streams and time stamps associated with the video
13 frames within each of the previously stored MPEG streams;
14 accepting a user control command;

15 in response to the user control command, selecting a particular video frame from
16 within a particular MPEG stream stored on the storage device using a time
17 stamp associated with the selected particular video frame;
18 retrieving the selected particular video frame using a stored starting location of the
19 selected particular video frame; and
20 sending the selected particular video frame for display.

1 132. (New) The method of Claim 131, wherein the particular video frame is a video I-
2 frame.

1 133. (New) The method of Claim 131, wherein the retrieving step further comprises:
2 adjusting video frame rate delivery for display of additional video frames in response
3 to the user control command; and
4 adjusting video frame retrieval direction from the particular MPEG stream in
5 response to the user control command.

1 134. (New) The method of Claim 131, wherein the retrieving step further comprises:
2 adjusting video frame rate delivery for display of additional video frames in response
3 to a second user control command; and
4 adjusting video frame retrieval direction from the particular MPEG stream in
5 response to the second user control command.

1 135. (New) The method of Claim 131, wherein the selecting step substitutes a second
2 storage device for the storage device and selects a particular video frame from within a

3 particular MPEG stream stored on the second storage device using a time stamp associated
4 with the selected particular video frame.

1 136. (New) The method of Claim 131, wherein the extracting step extracts an MPEG
2 stream based on a user control command.

1 137. (New) The method of Claim 131, wherein the extracting step extracts an MPEG
2 stream based on date and time.

1 138. (New) The method of Claim 131, wherein the extracting step extracts an MPEG
2 stream based on a particular word or particular phrase in the digital television stream.

1 139. (New) The method of Claim 131, wherein the storing step further comprises:
2 switching to a second storage device for MPEG stream storage.

1 140. (New) The method of Claim 131, wherein the receiving step further comprises:
2 switching to a second digital television stream.

1 141. (New) The method of Claim 131, wherein the selecting step further comprises:
2 in response to a second user command, selecting a second particular video
3 frame from a second MPEG stream stored on the storage device;
4 wherein the retrieving step further comprises:
5 retrieving the selected second particular video frame;
6 and wherein the sending step further comprises:

7 sending the selected particular video frame and the selected second particular
8 video frame to different destinations for display.

1 142. (New) The method of Claim 131, wherein the selecting step further comprises:

2 in response to a second user command, selecting a second particular video
3 frame from a second MPEG stream stored on the storage device;

4 wherein the retrieving step further comprises:

5 retrieving the selected second particular video frame;

6 and wherein the sending step further comprises:

7 sending the selected particular video frame and the selected second particular
8 video frame to different areas within a display.

1 143. (New) The method of Claim 131, wherein the storage device is a hard disk.

1 144. (New) A method for storage and display of multimedia data, comprising the steps

2 of:

3 receiving a digital television stream;

4 extracting from the digital television stream an MPEG stream that contains a

5 plurality of video and audio frames and time stamps associated with the
6 video and audio frames;

7 identifying starting locations of video frames within the MPEG stream and time
8 stamps associated with video frames;

9 storing on a storage device the MPEG stream, starting locations of video frames
10 within the MPEG stream and time stamps associated with the video frames,

11 the storage device additionally containing a plurality of previously stored
12 MPEG streams, starting locations of video frames within each of the
13 previously stored MPEG streams and time stamps associated with the video
14 frames within each of the previously stored MPEG streams;
15 accepting a user control command;
16 in response to the user control command, selecting a particular video frame from
17 within a particular MPEG stream stored on the storage device using a time
18 stamp associated with the selected particular video frame;
19 selecting a corresponding audio frame from within the particular MPEG stream that
20 corresponds to the particular video frame;
21 retrieving the selected particular video frame using a stored starting location of the
22 selected particular video frame;
23 retrieving the selected corresponding audio frame from the particular MPEG stream;
24 and
25 sending the selected particular video frame and selected corresponding audio frame
26 for playback.

1 145. (New) The method of Claim 144, wherein the particular video frame is a video I-
2 frame.

1 146. (New) The method of Claim 144, wherein the retrieving step further comprises:
2 adjusting video frame rate delivery for display of additional video frames in response
3 to the user control command; and

4 adjusting video frame retrieval direction from the particular MPEG stream in
5 response to the user control command.

1 147. (New) The method of Claim 144, wherein the retrieving step further comprises:
2 adjusting video frame rate delivery for display of additional video frames in response
3 to a second user control command; and
4 adjusting video frame retrieval direction from the particular MPEG stream in
5 response to the second user control command.

1 148. (New) The method of Claim 144, wherein the video frame selecting step substitutes
2 a second storage device for the storage device and selects a particular video frame from
3 within a particular MPEG stream stored on the second storage device using a time stamp
4 associated with the selected particular video frame.

1 149. (New) The method of Claim 144, wherein the extracting step extracts an MPEG
2 stream based on a user control command.

1 150. (New) The method of Claim 144, wherein the extracting step extracts an MPEG
2 stream based on date and time.

1 151. (New) The method of Claim 144, wherein the extracting step extracts an MPEG
2 stream based on a particular word or particular phrase in the digital television stream.

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1 152. (New) The method of Claim 144, wherein the storing step further comprises:
2 switching to a second storage device for MPEG stream storage.

1 153. (New) The method of Claim 144, wherein the receiving step further comprises:
2 switching to a second digital television stream.

1 154. (New) The method of Claim 144, wherein the video frame selecting step further
2 comprises:

3 in response to a second user command, selecting a second particular video
4 frame from a second MPEG stream stored on the storage device;

5 wherein the audio frame selecting step further comprises:

6 selecting a second corresponding audio frame from within the second MPEG
7 stream that corresponds to the selected second particular video frame;

8 wherein the video frame retrieving step further comprises:

9 retrieving the selected second particular video frame;

10 wherein the audio frame retrieving step further comprises:

11 retrieving the selected second corresponding audio frame;

12 and wherein the sending step further comprises:

13 sending the selected particular video frame and the selected second particular
14 video frame to different destinations for display along with their respective selected
15 corresponding audio frame and selected second corresponding audio frame.

1 155. (New) The method of Claim 144, wherein the video frame selecting step further
2 comprises:

3 in response to a second user command, selecting a second particular video
4 frame from a second MPEG stream stored on the storage device;
5 wherein the audio frame selecting step further comprises:
6 selecting a second corresponding audio frame from within the second MPEG
7 stream that corresponds to the selected second particular video frame;
8 wherein the video frame retrieving step further comprises:
9 retrieving the selected second particular video frame;
10 wherein the audio frame retrieving step further comprises:
11 retrieving the selected second corresponding audio frame;
12 and wherein the sending step further comprises:
13 sending the selected particular video frame and the selected second particular
14 video frame to different areas within a display along with their respective selected
15 corresponding audio frame and selected second corresponding audio frame.

1 156. (New) The method of Claim 144, wherein the storage device is a hard disk.

1 157. (New) A method for storage and display of multimedia data, comprising the steps
2 of:
3 receiving an analog television signal;
4 encoding from the analog television signal an MPEG stream that contains a plurality
5 of video frames and time stamps associated with the video frames;
6 identifying starting locations of video frames within the MPEG stream and time
7 stamps associated with video frames;

8 storing on a storage device the MPEG stream, starting locations of video frames
9 within the MPEG stream and time stamps associated with the video frames,
10 the storage device additionally containing a plurality of previously stored
11 MPEG streams, starting locations of video frames within each of the
12 previously stored MPEG streams and time stamps associated with the video
13 frames within each of the previously stored MPEG streams;
14 accepting a user control command;
15 in response to the user control command, selecting a particular video frame from
16 within a particular MPEG stream stored on the storage device using a time
17 stamp associated with the selected particular video frame;
18 retrieving the selected particular video frame using a stored starting location of the
19 selected particular video frame; and
20 sending the selected particular video frame for display.

1 158. (New) The method of Claim 157, wherein the particular video frame is a video I-
2 frame.

1 159. (New) The method of Claim 157, wherein the retrieving step further comprises:
2 adjusting video frame rate delivery for display of additional video frames in response
3 to the user control command; and
4 adjusting video frame retrieval direction from the particular MPEG stream in
5 response to the user control command.

1 160. (New) The method of Claim 157, wherein the retrieving step further comprises:

2 adjusting video frame rate delivery for display of additional video frames in response
3 to a second user control command; and
4 adjusting video frame retrieval direction from the particular MPEG stream in
5 response to the second user control command.

1 161. (New) The method of Claim 157, wherein the selecting step substitutes a second
2 storage device for the storage device and selects a particular video frame from within a
3 particular MPEG stream stored on the second storage device using a time stamp associated
4 with the selected particular video frame.

1 162. (New) The method of Claim 157, wherein the extracting step extracts an MPEG
2 stream based on a user control command.

1 163. (New) The method of Claim 157, wherein the extracting step extracts an MPEG
2 stream based on date and time.

1 164. (New) The method of Claim 157, wherein the extracting step extracts an MPEG
2 stream based on a particular word or particular phrase in the analog television signal.

1 165. (New) The method of Claim 157, wherein the storing step further comprises:
2 switching to a second storage device for MPEG stream storage.

1 166. (New) The method of Claim 157, wherein the receiving step further comprises:
2 switching to a second analog television signal.

1 167. (New) The method of Claim 157, wherein the selecting step further comprises:
2 in response to a second user command, selecting a second particular video
3 frame from a second MPEG stream stored on the storage device;
4 wherein the retrieving step further comprises:
5 retrieving the selected second particular video frame;
6 and wherein the sending step further comprises:
7 sending the selected particular video frame and the selected second particular
8 video frame to different destinations for display.

1 168. (New) The method of Claim 157, wherein the selecting step further comprises:
2 in response to a second user command, selecting a second particular video
3 frame from a second MPEG stream stored on the storage device;
4 wherein the retrieving step further comprises:
5 retrieving the selected second particular video frame;
6 and wherein the sending step further comprises:
7 sending the selected particular video frame and the selected second particular
8 video frame to different areas within a display.

1 169. (New) The method of Claim 157, wherein the storage device is a hard disk.

1 170. (New) A method for storage and display of multimedia data, comprising the steps
2 of:
3 receiving an analog television signal;

4 encoding from the analog television signal an MPEG stream that contains a plurality
5 of video and audio frames and time stamps associated with the video and
6 audio frames;
7 identifying starting locations of video frames within the MPEG stream and time
8 stamps associated with video frames;
9 storing on a storage device the MPEG stream, starting locations of video frames
10 within the MPEG stream and time stamps associated with the video frames,
11 the storage device additionally containing a plurality of previously stored
12 MPEG streams, starting locations of video frames within each of the
13 previously stored MPEG streams and time stamps associated with the video
14 frames within each of the previously stored MPEG streams;
15 accepting a user control command;
16 in response to the user control command, selecting a particular video frame from
17 within a particular MPEG stream stored on the storage device using a time
18 stamp associated with the selected particular video frame;
19 selecting a corresponding audio frame from within the particular MPEG stream that
20 corresponds to the particular video frame;
21 retrieving the selected particular video frame using a stored starting location of the
22 selected particular video frame;
23 retrieving the selected corresponding audio frame from the particular MPEG stream;
24 and
25 sending the selected particular video frame and selected corresponding audio frame
26 for playback.

1 171. (New) The method of Claim 170, wherein the particular video frame is a video I-
2 frame.

1 172. (New) The method of Claim 170, wherein the retrieving step further comprises:
2 adjusting video frame rate delivery for display of additional video frames in response
3 to the user control command; and
4 adjusting video frame retrieval direction from the particular MPEG stream in
5 response to the user control command.

1 173. (New) The method of Claim 170, wherein the retrieving step further comprises:
2 adjusting video frame rate delivery for display of additional video frames in response
3 to a second user control command; and
4 adjusting video frame retrieval direction from the particular MPEG stream in
5 response to the second user control command.

1 174. (New) The method of Claim 170, wherein the video frame selecting step substitutes
2 a second storage device for the storage device and selects a particular video frame from
3 within a particular MPEG stream stored on the second storage device using a time stamp
4 associated with the selected particular video frame.

1 175. (New) The method of Claim 170, wherein the extracting step extracts an MPEG
2 stream based on a user control command.

1 176. (New) The method of Claim 170, wherein the extracting step extracts an MPEG
2 stream based on date and time.

1 177. (New) The method of Claim 170, wherein the extracting step extracts an MPEG
2 stream based on a particular word or particular phrase in the analog television signal.

1 178. (New) The method of Claim 170, wherein the storing step further comprises:
2 switching to a second storage device for MPEG stream storage.

1 179. (New) The method of Claim 170, wherein the receiving step further comprises:
2 switching to a second analog television signal.

1 180. (New) The method of Claim 170, wherein the video frame selecting step further
2 comprises:

3 in response to a second user command, selecting a second particular video
4 frame from a second MPEG stream stored on the storage device;
5 wherein the audio frame selecting step further comprises:

6 selecting a second corresponding audio frame from within the second MPEG
7 stream that corresponds to the selected second particular video frame;

8 wherein the video frame retrieving step further comprises:

9 retrieving the selected second particular video frame;

10 wherein the audio frame retrieving step further comprises:

11 retrieving the selected second corresponding audio frame;

12 and wherein the sending step further comprises:

13 sending the selected particular video frame and the selected second particular
14 video frame to different destinations for display along with their respective selected
15 corresponding audio frame and selected second corresponding audio frame.

1 181. (New) The method of Claim 170, wherein the video frame selecting step further
2 comprises:

3 in response to a second user command, selecting a second particular video
4 frame from a second MPEG stream stored on the storage device;

5 wherein the audio frame selecting step further comprises:

6 selecting a second corresponding audio frame from within the second MPEG
7 stream that corresponds to the selected second particular video frame;

8 wherein the video frame retrieving step further comprises:

9 retrieving the selected second particular video frame;

10 wherein the audio frame retrieving step further comprises:

11 retrieving the selected second corresponding audio frame;

12 and wherein the sending step further comprises:

13 sending the selected particular video frame and the selected second particular
14 video frame to different areas within a display along with their respective selected
15 corresponding audio frame and selected second corresponding audio frame.

1 182. (New) The method of Claim 170, wherein the storage device is a hard disk.

1 183. (New) An apparatus for storage and display of multimedia data, comprising:
2 a receiver that receives a digital television stream;

3 an extraction module, wherein the extraction module extracts from the digital
4 television stream an MPEG stream that contains a plurality of video frames
5 and time stamps associated with the video frames;
6 an identification module, wherein the identification module identifies starting
7 locations of video frames within the MPEG stream and time stamps
8 associated with video frames;
9 a storage device for storing the MPEG stream, starting locations of video frames
10 within the MPEG stream and time stamps associated with the video frames,
11 the storage device additionally containing a plurality of previously stored
12 MPEG streams, starting locations of video frames within each of the
13 previously stored MPEG streams and time stamps associated with the video
14 frames within each of the previously stored MPEG streams;
15 a user control command module, wherein the user control command module accepts
16 a user control command;
17 a selection module, wherein the selection module, in response to the user control
18 command, selects a particular video frame from within a particular MPEG
19 stream stored on the storage device using a time stamp associated with the
20 selected particular video frame;
21 a retrieving module, wherein the retrieving module retrieves the selected particular
22 video frame using a stored starting location of the selected particular video
23 frame; and
24 a sending module, wherein the sending module sends the selected particular video
25 frame for display.

1 184. (New) The apparatus of Claim 183, wherein the particular video frame is a video I-
2 frame.

1 185. (New) The apparatus of Claim 183, wherein the retrieving module adjusts video
2 frame rate delivery for display of additional video frames in response to the user control
3 command; and adjusts video frame retrieval direction from the particular MPEG stream in
4 response to the user control command.

1 186. (New) The apparatus of Claim 183, wherein the retrieving module adjusts video
2 frame rate delivery for display of additional video frames in response to a second user
3 control command; and adjusts video frame retrieval direction from the particular MPEG
4 stream in response to the second user control command.

1 187. (New) The apparatus of Claim 183, wherein the selection module substitutes a
2 second storage device for the storage device and selects a particular video frame from within
3 a particular MPEG stream stored on the second storage device using a time stamp associated
4 with the selected particular video frame.

1 188. (New) The apparatus of Claim 183, wherein the extraction module extracts an
2 MPEG stream based on a user control command.

1 189. (New) The apparatus of Claim 183, wherein the extraction module extracts an
2 MPEG stream based on date and time.

1 190. (New) The apparatus of Claim 183, wherein the extraction module extracts an
2 MPEG stream based on a particular word or particular phrase in the digital television
3 stream.

1 191. (New) The apparatus of Claim 183, further comprising:
2 a storage device switching module, wherein the storage device switching module
3 switches to a second storage device for MPEG stream storage.

1 192. (New) The apparatus of Claim 183, wherein the receiver switches to a second digital
2 television stream.

1 193. (New) The apparatus of Claim 183, wherein the selection module, in response to a
2 second user command, selects a second particular video frame from a second MPEG stream
3 stored on the storage device; wherein the retrieving module retrieves the selected second
4 particular video frame; and wherein the sending module sends the selected particular video
5 frame and the selected second particular video frame to different destinations for display.

1 194. (New) The apparatus of Claim 183, wherein the selection module, in response to a
2 second user command, selects a second particular video frame from a second MPEG stream
3 stored on the storage device; wherein the retrieving module retrieves the selected second
4 particular video frame; and wherein the sending module sends the selected particular video
5 frame and the selected second particular video frame to different areas within a display.

1 195. (New) The apparatus of Claim 183, wherein the storage device is a hard disk.

1 196. (New) An apparatus for storage and display of multimedia data, comprising:
2 a receiver that receives a digital television stream;
3 an extraction module, wherein the extraction module extracts from the digital
4 television stream an MPEG stream that contains a plurality of video and
5 audio frames and time stamps associated with the video and audio frames;
6 an identification module, wherein the identification module identifies starting
7 locations of video frames within the MPEG stream and time stamps
8 associated with video frames;
9 a storage device for storing the MPEG stream, starting locations of video frames
10 within the MPEG stream and time stamps associated with the video frames,
11 the storage device additionally containing a plurality of previously stored
12 MPEG streams, starting locations of video frames within each of the
13 previously stored MPEG streams and time stamps associated with the video
14 frames within each of the previously stored MPEG streams;
15 a user control command module, wherein the user control command module accepts
16 a user control command;
17 a video frame selection module, wherein the video frame selection module, in
18 response to the user control command, selects a particular video frame from
19 within a particular MPEG stream stored on the storage device using a time
20 stamp associated with the selected particular video frame;
21 an audio frame selection module, wherein the audio frame selection module selects a
22 corresponding audio frame from within the particular MPEG stream that
23 corresponds to the particular video frame;

24 a video frame retrieving module, wherein the video frame retrieving module
25 retrieves the selected particular video frame using a stored starting location of
26 the selected particular video frame;
27 an audio frame retrieving module, wherein the audio frame retrieving module
28 retrieves the selected corresponding audio frame from the particular MPEG
29 stream; and
30 a sending module, wherein the sending module sends the selected particular video
31 frame and selected corresponding audio frame for playback.

1 197. (New) The apparatus of Claim 196, wherein the particular video frame is a video I-
2 frame.

1 198. (New) The apparatus of Claim 196, wherein the retrieving module adjusts video
2 frame rate delivery for display of additional video frames in response to the user control
3 command; and adjusts video frame retrieval direction from the particular MPEG stream in
4 response to the user control command.

1 199. (New) The apparatus of Claim 196, wherein the retrieving module adjusts video
2 frame rate delivery for display of additional video frames in response to a second user
3 control command; and adjusts video frame retrieval direction from the particular MPEG
4 stream in response to the second user control command.

1 200. (New) The apparatus of Claim 196, wherein the video frame selection module
2 substitutes a second storage device for the storage device and selects a particular video

3 frame from within a particular MPEG stream stored on the second storage device using a
4 time stamp associated with the selected particular video frame.

1 201. (New) The apparatus of Claim 196, wherein the extraction module extracts an
2 MPEG stream based on a user control command.

1 202. (New) The apparatus of Claim 196, wherein the extraction module extracts an
2 MPEG stream based on date and time.

1 203. (New) The apparatus of Claim 196, wherein the extraction module extracts an
2 MPEG stream based on a particular word or particular phrase in the digital television
3 stream.

1 204. (New) The apparatus of Claim 196, further comprising:
2 a storage device switching module, wherein the storage device switching module
3 switches to a second storage device for MPEG stream storage.

1 205. (New) The apparatus of Claim 196, wherein the receiver switches to a second digital
2 television stream.

1 206. (New) The apparatus of Claim 196, wherein the video frame selecting module, in
2 response to a second user command, selects a second particular video frame from a second
3 MPEG stream stored on the storage device; wherein the audio frame selecting module
4 selects a second corresponding audio frame from within the second MPEG stream that

5 corresponds to the selected second particular video frame; wherein the video frame
6 retrieving module retrieves the selected second particular video frame; wherein the audio
7 frame retrieving module retrieves the selected second corresponding audio frame; and
8 wherein the sending module sends the selected particular video frame and the selected
9 second particular video frame to different destinations for display along with their respective
10 selected corresponding audio frame and selected second corresponding audio frame.

1 207. (New) The apparatus of Claim 196, wherein the video frame selecting module, in
2 response to a second user command, selects a second particular video frame from a second
3 MPEG stream stored on the storage device; wherein the audio frame selecting module
4 selects a second corresponding audio frame from within the second MPEG stream that
5 corresponds to the selected second particular video frame; wherein the video frame
6 retrieving module retrieves the selected second particular video frame; wherein the audio
7 frame retrieving module retrieves the selected second corresponding audio frame; and
8 wherein the sending module sends the selected particular video frame and the selected
9 second particular video frame to different areas within a display along with their respective
10 selected corresponding audio frame and selected second corresponding audio frame.

1 208. (New) The apparatus of Claim 196, wherein the storage device is a hard disk.

1 209. (New) An apparatus for storage and display of multimedia data, comprising:
2 a receiver that receives an analog television signal;

3 an encoding module, wherein the encoding module encodes from the analog
4 television signal an MPEG stream that contains a plurality of video frames
5 and time stamps associated with the video frames;
6 an identification module, wherein the identification module identifies starting
7 locations of video frames within the MPEG stream and time stamps
8 associated with video frames;
9 a storage device for storing the MPEG stream, starting locations of video frames
10 within the MPEG stream and time stamps associated with the video frames,
11 the storage device additionally containing a plurality of previously stored
12 MPEG streams, starting locations of video frames within each of the
13 previously stored MPEG streams and time stamps associated with the video
14 frames within each of the previously stored MPEG streams;
15 a user control command module, wherein the user control command module accepts
16 a user control command;
17 a selection module, wherein the selection module, in response to the user control
18 command, selects a particular video frame from within a particular MPEG
19 stream stored on the storage device using a time stamp associated with the
20 selected particular video frame;
21 a retrieving module, wherein the retrieving module retrieves the selected particular
22 video frame using a stored starting location of the selected particular video
23 frame; and
24 a sending module, wherein the sending module sends the selected particular video
25 frame for display.

1 210. (New) The apparatus of Claim 209, wherein the particular video frame is a video I-
2 frame.

1 211. (New) The apparatus of Claim 209, wherein the retrieving module adjusts video
2 frame rate delivery for display of additional video frames in response to the user control
3 command; and adjusts video frame retrieval direction from the particular MPEG stream in
4 response to the user control command.

1 212. (New) The apparatus of Claim 209, wherein the retrieving module adjusts video
2 frame rate delivery for display of additional video frames in response to a second user
3 control command; and adjusts video frame retrieval direction from the particular MPEG
4 stream in response to the second user control command.

1 213. (New) The apparatus of Claim 209, wherein the selection module substitutes a
2 second storage device for the storage device and selects a particular video frame from within
3 a particular MPEG stream stored on the second storage device using a time stamp associated
4 with the selected particular video frame.

1 214. (New) The apparatus of Claim 209, wherein the extraction module extracts an
2 MPEG stream based on a user control command.

1 215. (New) The apparatus of Claim 209, wherein the extraction module extracts an
2 MPEG stream based on date and time.

1 216. (New) The apparatus of Claim 209, wherein the extraction module extracts an
2 MPEG stream based on a particular word or particular phrase in the analog television signal.

1 217. (New) The apparatus of Claim 209, further comprising:
2 a storage device switching module, wherein the storage device switching module
3 switches to a second storage device for MPEG stream storage.

1 218. (New) The apparatus of Claim 209, wherein the receiver switches to a second
2 analog television signal.

1 219. (New) The apparatus of Claim 209, wherein the selection module, in response to a
2 second user command, selects a second particular video frame from a second MPEG stream
3 stored on the storage device; wherein the retrieving module retrieves the selected second
4 particular video frame; and wherein the sending module sends the selected particular video
5 frame and the selected second particular video frame to different destinations for display.

1 220. (New) The apparatus of Claim 209, wherein the selection module, in response to a
2 second user command, selects a second particular video frame from a second MPEG stream
3 stored on the storage device; wherein the retrieving module retrieves the selected second
4 particular video frame; and wherein the sending module sends the selected particular video
5 frame and the selected second particular video frame to different areas within a display.

1 221. (New) The apparatus of Claim 209, wherein the storage device is a hard disk.

1 222. (New) An apparatus for storage and display of multimedia data, comprising:
2 a receiver that receives an analog television signal;
3 an encoding module, wherein the encoding module encodes from the analog
4 television signal an MPEG stream that contains a plurality of video and audio
5 frames and time stamps associated with the video and audio frames;
6 an identification module, wherein the identification module identifies starting
7 locations of video frames within the MPEG stream and time stamps
8 associated with video frames;
9 a storage device for storing the MPEG stream, starting locations of video frames
10 within the MPEG stream and time stamps associated with the video frames,
11 the storage device additionally containing a plurality of previously stored
12 MPEG streams, starting locations of video frames within each of the
13 previously stored MPEG streams and time stamps associated with the video
14 frames within each of the previously stored MPEG streams;
15 a user control command module, wherein the user control command module accepts
16 a user control command;
17 a video frame selection module, wherein the video frame selection module, in
18 response to the user control command, selects a particular video frame from
19 within a particular MPEG stream stored on the storage device using a time
20 stamp associated with the selected particular video frame;
21 an audio frame selection module, wherein the audio frame selection module selects a
22 corresponding audio frame from within the particular MPEG stream that
23 corresponds to the particular video frame;

24 a video frame retrieving module, wherein the video frame retrieving module
25 retrieves the selected particular video frame using a stored starting location of
26 the selected particular video frame;
27 an audio frame retrieving module, wherein the audio frame retrieving module
28 retrieves the selected corresponding audio frame from the particular MPEG
29 stream; and
30 a sending module, wherein the sending module sends the selected particular video
31 frame and selected corresponding audio frame for playback.

1 223. (New) The apparatus of Claim 222, wherein the particular video frame is a video I-
2 frame.

1 224. (New) The apparatus of Claim 222, wherein the retrieving module adjusts video
2 frame rate delivery for display of additional video frames in response to the user control
3 command; and adjusts video frame retrieval direction from the particular MPEG stream in
4 response to the user control command.

1 225. (New) The apparatus of Claim 222, wherein the retrieving module adjusts video
2 frame rate delivery for display of additional video frames in response to a second user
3 control command; and adjusts video frame retrieval direction from the particular MPEG
4 stream in response to the second user control command.

1 226. (New) The apparatus of Claim 222, wherein the video frame selection module
2 substitutes a second storage device for the storage device and selects a particular video

3 frame from within a particular MPEG stream stored on the second storage device using a
4 time stamp associated with the selected particular video frame.

1 227. (New) The apparatus of Claim 222, wherein the extraction module extracts an
2 MPEG stream based on a user control command.

1 228. (New) The apparatus of Claim 222, wherein the extraction module extracts an
2 MPEG stream based on date and time.

1 229. (New) The apparatus of Claim 222, wherein the extraction module extracts an
2 MPEG stream based on a particular word or particular phrase in the analog television signal.

1 230. (New) The apparatus of Claim 222, further comprising:
2 a storage device switching module, wherein the storage device switching module
3 switches to a second storage device for MPEG stream storage.

1 231. (New) The apparatus of Claim 222, wherein the receiver switches to a second
2 analog television signal.

1 232. (New) The apparatus of Claim 222, wherein the video frame selecting module, in
2 response to a second user command, selects a second particular video frame from a second
3 MPEG stream stored on the storage device; wherein the audio frame selecting module
4 selects a second corresponding audio frame from within the second MPEG stream that
5 corresponds to the selected second particular video frame; wherein the video frame

6 retrieving module retrieves the selected second particular video frame; wherein the audio
7 frame retrieving module retrieves the selected second corresponding audio frame; and
8 wherein the sending module sends the selected particular video frame and the selected
9 second particular video frame to different destinations for display along with their respective
10 selected corresponding audio frame and selected second corresponding audio frame.

1 233. (New) The apparatus of Claim 222, wherein the video frame selecting module, in
2 response to a second user command, selects a second particular video frame from a second
3 MPEG stream stored on the storage device; wherein the audio frame selecting module
4 selects a second corresponding audio frame from within the second MPEG stream that
5 corresponds to the selected second particular video frame; wherein the video frame
6 retrieving module retrieves the selected second particular video frame; wherein the audio
7 frame retrieving module retrieves the selected second corresponding audio frame; and
8 wherein the sending module sends the selected particular video frame and the selected
9 second particular video frame to different areas within a display along with their respective
10 selected corresponding audio frame and selected second corresponding audio frame.

1 234. (New) The apparatus of Claim 222, wherein the storage device is a hard disk.

1 235. (New) An apparatus for storage and display of multimedia data, comprising:
2 receiving means for receiving a digital television stream;
3 extraction means for extracting from the digital television stream an MPEG stream
4 that contains a plurality of video frames and time stamps associated with the
5 video frames;

6 identification means for identifying starting locations of video frames within the
7 MPEG stream and time stamps associated with video frames;
8 storage means for storing the MPEG stream, starting locations of video frames
9 within the MPEG stream and time stamps associated with the video frames,
10 the storage device additionally containing a plurality of previously stored
11 MPEG streams, starting locations of video frames within each of the
12 previously stored MPEG streams and time stamps associated with the video
13 frames within each of the previously stored MPEG streams;
14 user control command means for accepting a user control command;
15 selection means for, in response to the user control command, selecting a particular
16 video frame from within a particular MPEG stream stored on the storage
17 device using a time stamp associated with the selected particular video frame;
18 retrieving means for retrieving the selected particular video frame using a stored
19 starting location of the selected particular video frame; and
20 sending means for sending the selected particular video frame for display.

1 236. (New) The apparatus of Claim 235, wherein the particular video frame is a video I-
2 frame.

1 237. (New) The apparatus of Claim 235, wherein the retrieving means adjusts video
2 frame rate delivery for display of additional video frames in response to the user control
3 command; and adjusts video frame retrieval direction from the particular MPEG stream in
4 response to the user control command.

1 238. (New) The apparatus of Claim 235, wherein the retrieving means adjusts video
2 frame rate delivery for display of additional video frames in response to a second user
3 control command; and adjusts video frame retrieval direction from the particular MPEG
4 stream in response to the second user control command.

1 239. (New) The apparatus of Claim 235, wherein the selection module substitutes a
2 second storage device for the storage device and selects a particular video frame from within
3 a particular MPEG stream stored on the second storage device using a time stamp associated
4 with the selected particular video frame.

1 240. (New) The apparatus of Claim 235, wherein the extraction means extracts an MPEG
2 stream based on a user control command.

1 241. (New) The apparatus of Claim 235, wherein the extraction means extracts an MPEG
2 stream based on date and time.

1 242. (New) The apparatus of Claim 235, wherein the extraction means extracts an MPEG
2 stream based on a particular word or particular phrase in the digital television stream.

1 243. (New) The apparatus of Claim 235, further comprising:
2 storage device switching means, wherein the storage device switching means
3 switches to a second storage means for MPEG stream storage.

1 244. (New) The apparatus of Claim 235, wherein the receiving means switches to a
2 second digital television stream.

1 245. (New) The apparatus of Claim 235, wherein the selection means, in response to a
2 second user command, selects a second particular video frame from a second MPEG stream
3 stored on the storage device; wherein the retrieving means retrieves the selected second
4 particular video frame; and wherein the sending means sends the selected particular video
5 frame and the selected second particular video frame to different destinations for display.

1 246. (New) The apparatus of Claim 235, wherein the selection means, in response to a
2 second user command, selects a second particular video frame from a second MPEG stream
3 stored on the storage device; wherein the retrieving means retrieves the selected second
4 particular video frame; and wherein the sending means sends the selected particular video
5 frame and the selected second particular video frame to different areas within a display.

1 247. (New) The apparatus of Claim 235, wherein the storage means is a hard disk.

1 248. (New) An apparatus for storage and display of multimedia data, comprising:
2 receiving means for receiving a digital television stream;
3 extraction means for extracting from the digital television stream an MPEG stream
4 that contains a plurality of video and audio frames and time stamps
5 associated with the video and audio frames;
6 identification means for identifying starting locations of video frames within the
7 MPEG stream and time stamps associated with video frames;

8 storage means for storing the MPEG stream, starting locations of video frames
9 within the MPEG stream and time stamps associated with the video frames,
10 the storage device additionally containing a plurality of previously stored
11 MPEG streams, starting locations of video frames within each of the
12 previously stored MPEG streams and time stamps associated with the video
13 frames within each of the previously stored MPEG streams;
14 user control command means for accepting a user control command;
15 video frame selection means for, in response to the user control command, selecting
16 a particular video frame from within a particular MPEG stream stored on the
17 storage device using a time stamp associated with the selected particular
18 video frame;
19 audio frame selection means for selecting a corresponding audio frame from within
20 the particular MPEG stream that corresponds to the particular video frame;
21 video frame retrieving means for retrieving the selected particular video frame using
22 a stored starting location of the selected particular video frame;
23 audio frame retrieving means for retrieving the selected corresponding audio frame
24 from the particular MPEG stream; and
25 sending means for sending the selected particular video frame and selected
26 corresponding audio frame for playback.

1 249. (New) The apparatus of Claim 248, wherein the particular video frame is a video I-
2 frame.

1 250. (New) The apparatus of Claim 248, wherein the retrieving means adjusts video
2 frame rate delivery for display of additional video frames in response to the user control
3 command; and adjusts video frame retrieval direction from the particular MPEG stream in
4 response to the user control command.

1 251. (New) The apparatus of Claim 248, wherein the retrieving means adjusts video
2 frame rate delivery for display of additional video frames in response to a second user
3 control command; and adjusts video frame retrieval direction from the particular MPEG
4 stream in response to the second user control command.

1 252. (New) The apparatus of Claim 248 wherein the video frame selection module
2 substitutes a second storage device for the storage device and selects a particular video
3 frame from within a particular MPEG stream stored on the second storage device using a
4 time stamp associated with the selected particular video frame.

1 253. (New) The apparatus of Claim 248, wherein the extraction means extracts an MPEG
2 stream based on a user control command.

1 254. (New) The apparatus of Claim 248, wherein the extraction means extracts an MPEG
2 stream based on date and time.

1 255. (New) The apparatus of Claim 248, wherein the extraction means extracts an MPEG
2 stream based on a particular word or particular phrase in the digital television stream.

1 256. (New) The apparatus of Claim 248, further comprising:
2 storage device switching means, wherein the storage device switching means
3 switches to a second storage means for MPEG stream storage.

1 257. (New) The apparatus of Claim 248, wherein the receiving means switches to a
2 second digital television stream.

1 258. (New) The apparatus of Claim 248, wherein the video frame selecting means, in
2 response to a second user command, selects a second particular video frame from a second
3 MPEG stream stored on the storage device; wherein the audio frame selecting means selects
4 a second corresponding audio frame from within the second MPEG stream that corresponds
5 to the selected second particular video frame; wherein the video frame retrieving means
6 retrieves the selected second particular video frame; wherein the audio frame retrieving
7 means retrieves the selected second corresponding audio frame; and wherein the sending
8 means sends the selected particular video frame and the selected second particular video
9 frame to different destinations for display along with their respective selected corresponding
10 audio frame and selected second corresponding audio frame.

1 259. (New) The apparatus of Claim 248, wherein the video frame selecting means, in
2 response to a second user command, selects a second particular video frame from a second
3 MPEG stream stored on the storage device; wherein the audio frame selecting means selects
4 a second corresponding audio frame from within the second MPEG stream that corresponds
5 to the selected second particular video frame; wherein the video frame retrieving means
6 retrieves the selected second particular video frame; wherein the audio frame retrieving

7 means retrieves the selected second corresponding audio frame; and wherein the sending
8 means sends the selected particular video frame and the selected second particular video
9 frame to different areas within a display along with their respective selected corresponding
10 audio frame and selected second corresponding audio frame.

1 260. (New) The apparatus of Claim 248, wherein the storage means is a hard disk.

1 261. (New) An apparatus for storage and display of multimedia data, comprising:
2 receiving means for receiving an analog television signal;
3 encoding means for encoding from the analog television signal an MPEG stream that
4 contains a plurality of video frames and time stamps associated with the
5 video frames;
6 identification means for identifying starting locations of video frames within the
7 MPEG stream and time stamps associated with video frames;
8 storage means for storing the MPEG stream, starting locations of video frames
9 within the MPEG stream and time stamps associated with the video frames,
10 the storage device additionally containing a plurality of previously stored
11 MPEG streams, starting locations of video frames within each of the
12 previously stored MPEG streams and time stamps associated with the video
13 frames within each of the previously stored MPEG streams;
14 user control command means for accepting a user control command;
15 selection means for, in response to the user control command, selecting a particular
16 video frame from within a particular MPEG stream stored on the storage
17 device using a time stamp associated with the selected particular video frame;

18 retrieving means for retrieving the selected particular video frame using a stored
19 starting location of the selected particular video frame; and
20 sending means for sending the selected particular video frame for display.

1 262. (New) The apparatus of Claim 261, wherein the particular video frame is a video I-
2 frame.

1 263. (New) The apparatus of Claim 261, wherein the retrieving means adjusts video
2 frame rate delivery for display of additional video frames in response to the user control
3 command; and adjusts video frame retrieval direction from the particular MPEG stream in
4 response to the user control command.

1 264. (New) The apparatus of Claim 261, wherein the retrieving means adjusts video
2 frame rate delivery for display of additional video frames in response to a second user
3 control command; and adjusts video frame retrieval direction from the particular MPEG
4 stream in response to the second user control command.

1 265. (New) The apparatus of Claim 261, wherein the selection module substitutes a
2 second storage device for the storage device and selects a particular video frame from within
3 a particular MPEG stream stored on the second storage device using a time stamp associated
4 with the selected particular video frame.

1 266. (New) The apparatus of Claim 261, wherein the extraction means extracts an MPEG
2 stream based on a user control command.

1 267. (New) The apparatus of Claim 261, wherein the extraction means extracts an MPEG
2 stream based on date and time.

1 268. (New) The apparatus of Claim 261, wherein the extraction means extracts an MPEG
2 stream based on a particular word or particular phrase in the analog television signal.

1 269. (New) The apparatus of Claim 261, further comprising:
2 storage device switching means, wherein the storage device switching means
3 switches to a second storage means for MPEG stream storage.

1 270. (New) The apparatus of Claim 261, wherein the receiving means switches to a
2 second analog television signal.

1 271. (New) The apparatus of Claim 261, wherein the selection means, in response to a
2 second user command, selects a second particular video frame from a second MPEG stream
3 stored on the storage device; wherein the retrieving means retrieves the selected second
4 particular video frame; and wherein the sending means sends the selected particular video
5 frame and the selected second particular video frame to different destinations for display.

1 272. (New) The apparatus of Claim 261, wherein the selection means, in response to a
2 second user command, selects a second particular video frame from a second MPEG stream
3 stored on the storage device; wherein the retrieving means retrieves the selected second
4 particular video frame; and wherein the sending means sends the selected particular video
5 frame and the selected second particular video frame to different areas within a display.

- 1 273. (New) The apparatus of Claim 261, wherein the storage means is a hard disk.
- 1 274. (New) An apparatus for storage and display of multimedia data, comprising:
2 receiving means for receiving an analog television signal;
3 encoding means for encoding from the analog television signal an MPEG stream that
4 contains a plurality of video and audio frames and time stamps associated
5 with the video and audio frames;
6 identification means for identifying starting locations of video frames within the
7 MPEG stream and time stamps associated with video frames;
8 storage means for storing the MPEG stream, starting locations of video frames
9 within the MPEG stream and time stamps associated with the video frames,
10 the storage device additionally containing a plurality of previously stored
11 MPEG streams, starting locations of video frames within each of the
12 previously stored MPEG streams and time stamps associated with the video
13 frames within each of the previously stored MPEG streams;
14 user control command means for accepting a user control command;
15 video frame selection means for, in response to the user control command, selecting
16 a particular video frame from within a particular MPEG stream stored on the
17 storage device using a time stamp associated with the selected particular
18 video frame;
19 audio frame selection means for selecting a corresponding audio frame from within
20 the particular MPEG stream that corresponds to the particular video frame;
21 video frame retrieving means for retrieving the selected particular video frame using
22 a stored starting location of the selected particular video frame;

23 audio frame retrieving means for retrieving the selected corresponding audio frame
24 from the particular MPEG stream; and
25 sending means for sending the selected particular video frame and selected
26 corresponding audio frame for playback.

1 275. (New) The apparatus of Claim 274, wherein the particular video frame is a video I-
2 frame.

1 276. (New) The apparatus of Claim 274, wherein the retrieving means adjusts video
2 frame rate delivery for display of additional video frames in response to the user control
3 command; and adjusts video frame retrieval direction from the particular MPEG stream in
4 response to the user control command.

1 277. (New) The apparatus of Claim 274, wherein the retrieving means adjusts video
2 frame rate delivery for display of additional video frames in response to a second user
3 control command; and adjusts video frame retrieval direction from the particular MPEG
4 stream in response to the second user control command.

1 278. (New) The apparatus of Claim 274, wherein the video frame selection module
2 substitutes a second storage device for the storage device and selects a particular video
3 frame from within a particular MPEG stream stored on the second storage device using a
4 time stamp associated with the selected particular video frame.

1 279. (New) The apparatus of Claim 274, wherein the extraction means extracts an MPEG
2 stream based on a user control command.

1 280. (New) The apparatus of Claim 274, wherein the extraction means extracts an MPEG
2 stream based on date and time.

1 281. (New) The apparatus of Claim 274, wherein the extraction means extracts an MPEG
2 stream based on a particular word or particular phrase in the analog television signal.

1 282. (New) The apparatus of Claim 274, further comprising:
2 storage device switching means, wherein the storage device switching means
3 switches to a second storage means for MPEG stream storage.

1 283. (New) The apparatus of Claim 274, wherein the receiving means switches to a
2 second analog television signal.

1 284. (New) The apparatus of Claim 274, wherein the video frame selecting means, in
2 response to a second user command, selects a second particular video frame from a second
3 MPEG stream stored on the storage device; wherein the audio frame selecting means selects
4 a second corresponding audio frame from within the second MPEG stream that corresponds
5 to the selected second particular video frame; wherein the video frame retrieving means
6 retrieves the selected second particular video frame; wherein the audio frame retrieving
7 means retrieves the selected second corresponding audio frame; and wherein the sending
8 means sends the selected particular video frame and the selected second particular video

9 frame to different destinations for display along with their respective selected corresponding
10 audio frame and selected second corresponding audio frame.

1 285. (New) The apparatus of Claim 274, wherein the video frame selecting means, in
2 response to a second user command, selects a second particular video frame from a second
3 MPEG stream stored on the storage device; wherein the audio frame selecting means selects
4 a second corresponding audio frame from within the second MPEG stream that corresponds
5 to the selected second particular video frame; wherein the video frame retrieving means
6 retrieves the selected second particular video frame; wherein the audio frame retrieving
7 means retrieves the selected second corresponding audio frame; and wherein the sending
8 means sends the selected particular video frame and the selected second particular video
9 frame to different areas within a display along with their respective selected corresponding
10 audio frame and selected second corresponding audio frame.

1 286. (New) The apparatus of Claim 274, wherein the storage means is a hard disk.